



Town of Eureka Historic Smelters

U.S. Environmental Protection Agency • Region 9 • San Francisco, CA • October 2015

Public Comment Period for EPA's Engineering Evaluation/Cost Analysis (EE/CA) October 15–December 15, 2015

The U.S. Environmental Agency (EPA) and the Nevada Division of Environmental Protection (NDEP) have been taking steps to evaluate and address lead and arsenic contaminated soil and slag with the Town of Eureka. The contamination occurred as a result of historic lead mining and smelting activities. To date, EPA has sampled more than two-hundred residential properties in Eureka and has conducted residential yard cleanups on forty-three properties. EPA determined which yards to clean up by working closely with property owners and using sampling results to identify the yards with the highest levels of contamination. Most residents in Eureka are familiar with EPA's yard cleanups, which were conducted over the past few summers. EPA's proposed plan to clean up remaining contaminated properties is open for public review and comment until December 15, 2015.

What is an EE/CA?

EPA's mission is to protect public health and the environment. When contaminants are found above protective levels in a community, such as the lead and arsenic found in the soil in Eureka, EPA is obligated to address the contamination. Over the past year, EPA has been preparing an Engineering Evaluation/Cost Analysis (EE/CA), a document that evaluates the feasibility and cost of longer term cleanup options for the contaminated soil present throughout much of Eureka. The alternatives evaluated under the EE/CA are intended to be a final remedy for the site.

During the development of this document, EPA and NDEP worked closely with the Eureka County Soil, Lead, Arsenic, & Geosopic (SLAG) Working Group to ensure that concerns and interests of the community were incorporated into the alternatives being evaluated. The SLAG met several times with EPA and NDEP over the past year to raise issues, voice community preferences, and actively contribute to the EE/CA document that is now open for public review and comment.

How Can I Review the EE/CA?

Hard copies of the EE/CA have been placed at the following locations in Eureka:

- Eureka County Library
- Eureka County Public Works Department
- Eureka Senior Citizens Center

The EE/CA is also available online at the following web page:
epaossc.org/eurekasmelter

Once at this web page, click on the documents tab, and then click on the "EECA" folder.

How can I provide comment on the EE/CA?

At the request of the community, EPA has lengthened the normal public comment period to sixty (60) days. During this time, EPA will accept comments on the EE/CA document. This public comment period will close on December 15, 2015.

Public comments can be submitted directly to Sarah Cafasso by email or by mail at the following address:

Sarah Cafasso
U.S. EPA (Mail Stop SFD-6-3)
75 Hawthorne Street
San Francisco, CA 94105
cafasso.sarah@epa.gov

What is the cost of EPA's recommended remedy and who would pay for it?

The total cost of the recommended remedy is approximately \$28 million. EPA Region 9 does not currently have funding for this remedy. We are in discussions with EPA Headquarters to evaluate ways in which EPA could provide funding for this remedy. EPA is not asking Eureka County or current residential property owners to pay for cleanup work.

What alternatives were evaluated in the EE/CA?

In order to simplify the EE/CA process, EPA separated the evaluation into five separate areas or "operable units" (OUs), including the following alternatives:

OU-1. Residential Properties

Alternative 1. No Further Action

Alternative 2. Soil Removal and Capping at Tier I and Tier II Properties; Institutional Controls (ICs); and Outreach and Education Programs

Alternative 3. Soil Removal and Capping at Tier I, Tier II, and Tier III Properties; ICs; and Outreach and Education Programs

OU-2. Slag Piles

Alternative 1. No Action

Alternative 2. Removal of Slag Piles to an Existing Landfill; and ICs

Alternative 3. Consolidation, Grading, and In-Place Capping of Slag Piles with a 2-Foot Soil Cover; and ICs

Alternative 4. Limited Use of Slag Piles as Consolidated Waste Repositories; Grading and In-Place Capping of Slag Piles with a 2-Foot Soil Cover; and ICs

Alternative 5. Maximized Use of Slag Piles as Consolidated Waste Repositories; Grading and In-Place Capping of Slag Piles with a 2-Foot Soil Cover; and ICs

OU-3. Undeveloped Parcels within or adjacent to Former Smelter and Mill Sites

Alternative 1. No Action

Alternative 2. Smelter and Mill Footprint Area, 1-Foot Soil Excavation and Removal with a 1-Foot Soil and/or Rock Cover on >10% slopes; and ICs

Alternative 3. Smelter and Mill Footprint Area Slope Capping with 1 Foot of Rock (Rock Slope Protection); Limited 1-Foot Soil Excavation and Removal with a 1-Foot Soil Cap in Residential Areas; and ICs

OU-4. Eureka Creek

Alternative 1. No Action

Alternative 2. Limited Excavation of Soil/Sediments and Rip Rap Armoring

Alternative 3. Excavation of Soil/Sediments and Rip Rap Armoring

OU-5. Disposal

Alternative 1. Offsite Disposal at an Existing Landfill

Alternative 2. Offsite Disposal at a Locally Constructed Landfill and Disposal of Slag Piles at an Existing Offsite Landfill

Alternative 3A. Disposal of Maximum Estimated Soil from OU-1, OU-3, and OU-4 at a Locally Constructed Landfill

Alternative 3B. Disposal of Residential Soil at a Locally Constructed Landfill

What is EPA's Recommended Remedy?

OU-1. Residential Properties

Alternative 3. Soil Removal and Capping at Tier I, Tier II, and Tier III Properties; ICs; and Outreach and Education Programs. This would involve excavation of contaminated soil from residential properties where lead concentrations exceed 425 parts per million (ppm) or arsenic concentrations exceed 234 ppm. The contaminated soil would be replaced with clean backfill and any pre-existing landscape features would be replaced. It is anticipated that this would involve cleanup of approximately 225 additional residential properties. As has been the case within previous cleanup work conducted in Eureka, cleanup of current residential properties would only occur with the consent of the property owner.

Based on the data collected as part of this EE/CA, site-specific bioavailability data, and EPA guidance and policy documents, the EPA identified the following OU-1 Residential site-specific cleanup levels and associated prioritization tiers:

Tier	Lead Cleanup Level (ppm)	Arsenic Cleanup Level (ppm)	Estimated Number of Properties
Tier 1	3,000	600	50
Tier 2	1,275	326	127
Tier 3	425	234	57

OU-2. Slag Piles

Alternative 4. Limited Use of Slag Piles as Consolidated Repositories; Grading and In-Place Capping of Slag Piles with a 2-Foot Soil Cover; and ICs. A two foot soil cover would be placed over the top of the two larger slag piles, which include the Eureka Company slag pile at the north end of town and the Richmond Consolidated slag pile at the south end of town. The two smaller slag piles would either be covered in place or would be consolidated into the larger slag piles.

OU-3. Undeveloped Parcels within or adjacent to Former Smelter and Mill Sites

Alternative 3. Smelter and Mill Footprint Area Slope Capping with 1 Foot of Rock (Rock Slope Protection); Limited 1-Foot Soil Excavation and Removal with a 1-Foot Soil Cap in Residential Areas; and ICs. These areas include four hillside areas. A one foot rock cover would be placed over these undeveloped parcels. In limited areas, where residential development is considered likely, EPA would excavate one foot of contaminated soil and replaced with a soil cap, rather than a rock cap.

OU-4. Eureka Creek

Alternative 1. No Action. Given that the creek has not been fully characterized and that there appears to be limited human exposure associated with the creek, EPA is recommending No Action for Eureka Creek.

OU-5. Disposal

Alternative 3B. Disposal of Residential Soil at a Locally Constructed Landfill. Approximately 60,000 cubic yards of soil excavated from residential properties would be placed in a landfill constructed for this purpose. The location of the landfill would be within the Town of Eureka on County-owned property.

What are Institutional Controls and Who Would Implement Them?

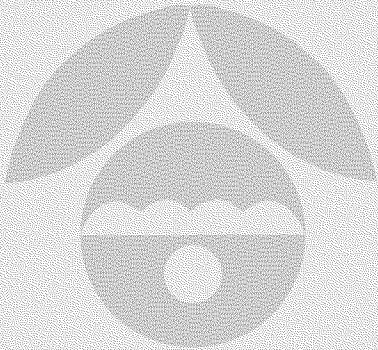
After completion of the fieldwork to implement the remedy, institutional controls are a set of administrative or legal controls implemented by NDEP and Eureka County to ensure the integrity of the clean soil and other protective barriers placed over contaminated soil or slag at locations that have been remediated within the Town of Eureka. ICs would also apply to properties in the Town of Eureka that have not been remediated but where contaminated soil may be present. The IC Plan is designed to protect human health and put procedures in place to guide property owners who are doing earthwork on their land.

United States Environmental Protection Agency, Region 9
75 Hawthorne Street (SFD-6-3)
San Francisco, CA 94105
Attn: Sarah Cafasso (Eureka 10/15)

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Sarah Cafasso
U.S. EPA (Mail Stop SFD-6-3)
75 Hawthorne Street
San Francisco, CA 94105
cafasso.sarah@epa.gov

EPA contact:

For more information, or to be added to the mailing list, please contact:

For More Information

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